REMARKS

Summary of the office Action

Claims 1-19 are pending in the application.

Claims 1-5 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Applicant submits that claim 1 complies with the requirements of 35 U.S.C. § 112, second paragraph.

Claims 1-6 and 8-11 are rejected under 35 U.S.C. § 102(e) as being anticipated by Wootton et al (U.S. Patent No. 6,128,298).

Claims 12-18 are rejected under 35 U.S.C. § 103 as being unpatentable over Wootton et al in view of Maddalozzo, Jr. et al (U.S. Patent No. 5,878,218).

These rejections are respectfully traversed

Applicant thanks the Examiner for indicating that claim 7 is directed to allowable subject matter.

Applicant also thanks the Examiner for allowing claim 19.

The Examiner has objected to the specification, alleging that page 12 is missing. Submitted herewith is a copy of the filing receipt confirming that 22 pages of the specification and one page of abstract was received by the Patent Office on July 10, 2001. Applicant is also submitting a courtesy copy of page 12.

Analysis of the Claim Rejections

The Examiner has maintained all the rejections based on prior art that were present in the previous Office Action. In response to the previous Office Action, it was argued that Wootton et al does not teach the feature of claim 1 of:

> an address converting portion for converting the external port values into corresponding private IP addresses and internal port values when a network node of one private network accesses another network node of another private network by using the external port values of another network node of another private network.

Specifically, it was argued that there is no teaching in Wootton et al relating to converting external port values into corresponding private IP addresses and internal port values when <u>a</u> <u>network node of one private network accesses another network node of another private network</u> <u>by using external port values of another network node of another private network.</u>

In the present Office Action, the Examiner responds by arguing that Applicant's argument is not persuasive, "because col. 5 lines 16-55 which recite communications between the node 18 on the network 10 and node 20 on the network 14, see Fig. 1, using a translation table maintained by the IP filter 12 acting as a gateway whereby the IP addresses and ports from the networks are substituted for the IP filter's IP address and ports clearly reads on converting external port values into IP addresses and internal port values when a node of the network accesses another node of another network as argued in pages 8 and 9 regarding claims 1 and 6 of the remark."

Applicant respectfully submits that the Examiner's remarks are directed to

communications between a private network and a public network. That is, the Examiner refers

to node 20 on network 14, but network 14 is clearly labeled a "PUBLIC NETWORK" (see Fig.

1). The teachings of Wootton et al cited by the Examiner clearly describe communications

between "PUBLIC NETWORK" 14 and "PRIVATE NETWORK" 10. Such communications do

not meet the requirement of the claim, "when a network node of one private network accesses

another network node of another private network". At least for this reason, Applicant submits

that claim 1 is not anticipated by Wootton et al.

Similarly, Wootton et al does not teach, "exchanging the assigned external port value of a

certain network node of a certain private network with the assigned external port value of

another node of another private network, and storing the exchange external port value", as

required by claim 6.

Regarding the rejection of claims 12-18 under 35 U.S.C. § 103 as being unpatentable

over Wootton et al in view of Maddalozzo, Jr. et al, it was argued in response to the previous

Office Action that combining features ii-iv with feature i, of claim 12 would destroy the principle

of operation upon which Wootton et al is based. In more detail, it was argued that Wootton et al

is concerned with the security of private nodes in a private network (see the last sentence of the

Abstract). Wootton et al teaches: "the IP filter 12 accepts no connection requests from the public

network 14. All communications between private nodes 18 and public nodes 20 are initiated by

the private nodes 18." (column 5, lines 30-43). Thus, Wootton et al teaches away from steps II-

IV of claim 12 of:

   ii) generating a webpage displaying node information of a private network, and liking the webpage to a global IP address;

   iii) accessing the webpage and the node information of the private network; and

   iv) accessing one of the network nodes of the private network based on the node information obtained in step iii).

In the present Office Action, the Examiner does not specifically respond to Applicant's argument that the combination proposed by the Examiner would destroy the principle of operation upon which Wootton et al is based. The Examiner merely asserts that the secondary reference, Maddalozzo, Jr. et al, teaches "the feature of providing a web page displaying node information of the private network provides efficiency of accessing requested data file in the private network." Section 2143.01 of the MPEP provides, "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)." Also, "If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)."

In the present case, modifying Wootton et al to perform operations ii-iv of claim 12 would change the operation of Wootton et al in a manner that Wootton et al explicitly teaches against. That is, Wootton et al explicitly states that "the IP filter 12 accepts no connection requests from the public network 14. All communications between private nodes 18 and public

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nodes 20 are initiated by the private nodes 18." (column 5, lines 30-43). Yet, the modification of Wootton et al proposed by the Examiner would result in the Wootton et al system operating in a manner that Wootton et al unequivocally seeks to avoid. Therefore, such a modification cannot render obvious the invention defined by claim 12.

The dependent claims of the application are patentable at least by virtue of their dependency.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. APP. NO. 09/901,486

The USPTO is directed and authorized to charge all required fees, except for the Issue

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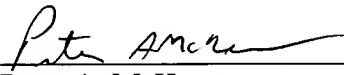
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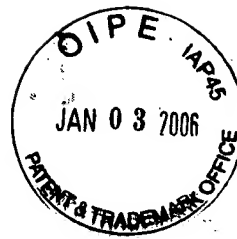
REQUEST OF EARLY NOTIFICATION OF SERIAL NUMBER

Inventor(s): Min-seop JEONG and Jung-ho SONG

Title: SYSTEM AND METHOD FOR ACCESSING NODE OF PRIVATE NETWORK

Atty Doc. #: Q63312 Client: NAWOO PATENT & LAW FIRM

Filing Date: <u>July 10, 2001</u> # Pgs. Spec/Abst: <u>22/1</u> #Claims: <u>19</u>

Dwg. Sheets: <u>9</u> Decl <u>NO</u> Prelim Amdt <u>NO</u>

IDS/Prior Art: <u>NO</u> Pr Doc: <u>YES(1)</u> Asgmt: <u>NO</u> Fee: <u>$790.00</u>

NO Check Attached NO Charge to Deposit # 19-4880 Atty/Sec:

DM/plr/aaa

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Here, it is assumed that the certain node that transmits the response is the first network node 30b of the second network 30 (hereinafter called a 'node 1:2'). Accordingly, the node 1:1 sends out a packet and recognizes the IP address of the node 1:2.

5 Next, the node 1:1 forwards its node information to the IP address of the node 1:2 (step S308), and receives node information and external port values of the node 1:2 (step S310). Then the node 1:1 stores the node information (step S312).

Accordingly, by exchanging node information with each other and thus

10 including the external port value of the node 1:2, the node 1:1 can forward a packet to the node 1:2 as it wishes.

The process of forwarding a packet from one network node of a source network to a network node of a destination network according to the present invention will be described.

15 FIG. 6 is a flowchart for explaining the process of converting and forwarding a packet according to the present invention.

The source network node forwards a packet including a private IP address and internal port value of the source network node, and private IP address and internal port value of the destination network node (step S402).

20 Then, according to the mapping table of the access node of the source network, the private IP addresses and internal port values of the source and destination network nodes are converted into a global IP address and external port value (step S404).

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